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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,443	12/05/2003	Charles Michael Webre	FRK-108-1	9370

21897 7590 05/19/2006

THE MATTHEWS FIRM
2000 BERING DRIVE
SUITE 700
HOUSTON, TX 77057

EXAMINER

BOMAR, THOMAS S

ART UNIT PAPER NUMBER

3672

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/728,443		WEBRE ET AL.	
	Examiner		Art Unit	
	Shane Bomar		3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,10,13-19 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,4,14,15,18,19 and 21-28 is/are allowed.
- 6) ☒ Claim(s) 10,13,16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6,626,238 to Hooper in view of US patent 6,478,087 to Allen.

Hooper teaches an oilfield tubular string feature locator for detecting the vertical position of an oilfield tubular string 6 suspended in a well relative to a drilling rig elevator 20, the locator comprising: the drilling rig elevator to function as a carrier for tubular feature sensors 31 and 32 and related mounting means (see Fig. 4); at least one of said tubular feature sensors 31 and 32 mounted on said elevator and arranged to sense selected characteristics of the tubular extending through the elevator and to produce an output signal indicative of the presence of the selected tubular characteristics (see Figs. 4-6 and col. 7, lines 17-22, wherein the sensors act together to perform the sensing function; therefore the total of the signal component from each sensor indicates the presence of the collar). However, it is not expressly taught that the sensor emits sound to travel through the airspace surrounding the tubular to impinge upon the surface of the tubular, and respond to airborne echo characteristic to determine the distance between reference features on the tubular, and the sensor, said output signals from each sensor being processed to produce sensed tubular feature related information.

Allen teaches an oilfield tubular string feature locator similar to that of Hooper. It is further taught that the sensors used by Allen can be either acoustic or ultrasonic (both sound related), or optical (see col. 2, lines 21-24 and lines 33-37). It would have been obvious to one

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of ordinary skill in the art, having the teachings of Hooper and Allen before him at the time the invention was made, to modify the locator taught by Hooper to include the sound emission sensors of Allen, in order to obtain a locator that can detect the profile and position of magnetic and non-magnetic well components. One would have been motivated to make such a combination because the references address the narrow problem of sensing characteristics of wellbore tubulars, therefore a person seeking to solve that exact problem would consult the references and apply their teachings together.

3. Claims 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Hooper.

Allen teaches an apparatus for indicating a desired position of a suspended insertable oil field assembly capable of being lowered into a tubular 20 comprising: an insertable oil field assembly (i.e., casing hanger, seal assembly, or downhole tool), having a lower end, suspended from a surface component known in the art, whereby said surface component insertably lowers said insertable oil field assembly into a tubular 20 positioned below said surface component (see col. 3, lines 7-28), wherein said insertable oil field assembly has a first reflecting surface (i.e., any portion of the insertable assembly is reflective and would therefore have a known distance from the end) disposed about said insertable oil field assembly at a pre-determined distance from the lower end of said an insertable oil field assembly; and a sensor 24, capable of emitting a signal to be reflected by said first reflecting surface disposed about said insertable oil field assembly, wherein the reflected signal indicates the position of said insertable oil field assembly relative to said tubular 20 (see col. 4, lines 14-40). It is also of note that the apparatus is equally

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useful in land based drilling (see col. 3, lines 12-14). However, it is not specifically taught what lowers the insertable assembly into the riser, such as a traveling block, elevator, and bails.

Hooper teaches an apparatus for indicating the position of a suspended oil field assembly, similar to that of Allen. It is further taught that the assembly 6 is capable of being lowered from a traveling block 3 from which are suspended at least two bails 5 having first and second lower ends respectively, and an elevator 20 fixedly attached to said bails (see Figs. 1 and 1a). It would have been obvious to one of ordinary skill in the art, having the teachings of Allen and Hooper before him at the time the invention was made, to modify the apparatus taught by Allen to include the conventional hoisting/lowering equipment of Hooper, in order to obtain a specific way to lower the well components into the riser. One would have been motivated to make such a combination since Allen states that means well known in the art are connected to the equipment of the apparatus and Hooper provides specifics of a well known drilling hoist/lift apparatus.

Regarding claim 17, Hooper teaches that a sensor is mounted on the elevator (see Fig. 4).

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Hooper as applied to claim 13 above, and further in view of US patent 6,073,699 to Hollingsworth, Jr.

Hooper teaches the apparatus of claim 13 that includes a sensor mounted on an elevator. However, it is not taught that the sensor can be mounted on the bails of the elevator.

Hollingsworth teaches an apparatus with a sensor for detecting characteristics of a tubular similar to that of Hooper. It is further taught that the sensors can be on the elevator or the bails (see col. 3, line 29). It would have been obvious to one of ordinary skill in the art, having the teachings of Hooper and Hollingsworth before him at the time the invention was made, to

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modify the apparatus taught by Hooper to include the bail mounted sensor of Hollingsworth.

One would have been motivated to make such a combination since Hollingsworth has shown it to be notoriously known in the art that tubular sensors can be mounted on either elevators or bails and still serve the same function.

Allowable Subject Matter

5. Claims 1, 3, 4, 14, 15, 18, 19, and 21-28 are allowed.

Response to Arguments

6. Applicant's arguments with respect to claims 10 and 13 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's arguments, see pages 15 and 16, filed February 22, 2006, with respect to claims 1, 3, and 25-27 have been fully considered and are persuasive. The rejection of these claims has been withdrawn.

Conclusion

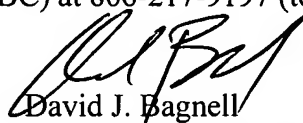
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Adnan et al, Edwin et al, Lavoie, and Rector teach various pipe sensing apparatuses of particular interest.

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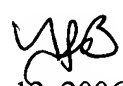
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 571-272-7026. The examiner can normally be reached on Monday - Thursday from 6:30am to 4:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David J. Bagnell
Supervisory Patent Examiner
Art Unit 3672

tsb


May 12, 2006